

CURRICULUM VITAE

Dr. Aniruddha Balkrishna Patil

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Dr. Aniruddha Balkrishna Patil

M.Sc (Analytical Chemistry). NET, IIT-GATE, Ph.D.(Tech), Post-doc, YAMASc
Post-Doc (Xiamen University, China), ICC-Young Scientist,
Visiting researcher RWTH-Aachen University (Germany)
Outstanding Scientist award, VGood
International Scientist Award, from International Research Association, London, UK

- * Section Editor Material Science 'Current Indian Science', Bentham Science Publication, Sharjah, UAE
- * Associate Editorial Board Member 'Current Chinese Sciences', Bentham Science Publication, Sharjah, U.A.E
- * Editorial board Member 'American Journal of Bioscience and Bioengineering', Science Publishing Group, USA
- * Editorial board Member 'Advanced Materials Science and Technology' Omniscient Pte. Ltd. Publishing group, Singapore.
- * Editorial Board Member of Science Journal of Chemistry(SJC) Science Publishing Group, USA.
- * Ambassador of Bentham Science Publication Group, U.A.E. (2020-2021)

Scopus ID: 55234102500

Orcid ID: <https://orcid.org/0000-0002-8423-2815>

Google Scholar ID: <https://scholar.google.com/citations?user=MHYXWVAAAAJ&hl=en&oi=ao>

Key skills:

- Research Guides MSc and Doctorate level
- Editorial board member of different international journals
- Expertise in fabrication, characterisation and applications of soft material
- Expertise in the fabrication of smart devices
- Vast experience in Field of Chemistry and Chemical engineering
- Research ideas in field of Organic, Analytical and Inorganic Chemistry
- Detailed knowledge of material and organic synthesis
- Excellent knowledge of materials and organic molecule characterisation
- Operational experience of various analytical tools.
- Expert in use of drawing softwares such as AI and photoshop.
- Passionate towards research and development
- Research experience in National and International level
- Work experience in National and International Industries
- Academic work experience in Under graduate and Post graduate college
- Manpower and utilities management.

Academic qualification:

Post Doctorate: China Fabrication of Silk based soft material for biomedical and bioengineering applications, at Bio Smat, Xiamen University, Xiamen, Fujian Province, China.
(Aug 2017 -Aug 2019)

Ph.D. (Technology): India- Synthesis of nanosize material and their application in organic transformations with process intensification. Institute of Chemical Technology, Matunga, Mumbai, India 400019.
Germany (January-2015)

Degree	University	Year of Passing
Post Doctorate	Xiamen University, Xiamen, China	Aug 2017-Aug 2019
Ph.D. (<i>Technology</i>)	ICT, Matunga, Mumbai, India	January 2015
M. Sc. (<i>Analytical Chemistry</i>)	IOS, University of Mumbai, India	June 2007
B.Sc. (<i>Chemistry</i>)	University of Mumbai, India	June 2003

Research Supervisors:

- Prof. Xiang Yang Liu, Bio Smat, Xiamen University, Xiamen, China.
- Prof. Bhalchandra M. Bhanage, Head, Department of Chemistry, Institute of Chemical Technology, Mumbai, India.
- Dr. Giulio Lollo, CAT Catalytic Centre, RWTH Aachen University, Germany (Prof. Walter Leitner group).
- Six months industrial research experience with Bayer Technology Services, Leverkusen, Germany with Prof. L. Mlesko.

Awards And Achievements:

- **International Scientist Award-2021**, from International Research Association, London, UK
- Young Associate Maharashtra Academy of Sciences-2021(**YAMASc**).
- Won the “**Outstanding Scientist Award**” in “International Scientist Awards on Engineering, Science and Medicine from VDGGOOD Professional Association, India
- **Ambassador of Bentham Science** Publication Group, U.A.E. (2020-2021)
- Qualified All India competitive exam for lectureship and Junior Research Fellowship, **CSIR-NET** (December-2010) with All India Rank 45.
- Qualified all India competitive exam of chemistry, **IIT-GATE** exam (Feb-2011).
- Awarded Junior Research Fellowship (**JRF**) year Dec-2009 to Nov-2011 by **Department of Atomic Energy (DAE) India**.
- Awarded Senior Research Fellowship (**SRF**) year Dec-2011-Nov-2013 by **Department of Atomic Energy (DAE) India**.
- **CSIR-Young Scientist 2013** International Travel grant award for Europe travel in Feb-2013.
- **Indian Council of Chemists-Young Scientist 2013** award.
- **Patent filling Award** by RWTH Aachen university, Germany.

Conference awards:

- ❖ Guided a research proposal titled Green synthesis of Silver Nanoparticle using Chitin from prawn shells and determining its antibacterial property which was Presented by Ms. Naik Suprita in Pure Sciences category and PPG level and secured **SECOND Rank at the Final Round of InterCollegiate / Institute / Department Avishkar Research Convention**: organised on Virtual Platform by University of Mumbai on June 30, 2021
- ❖ Title: “Greener method for the synthesis of Pd(0) nanoparticles and their application in Suzuki C-C Coupling reaction.”Secured **National level Gold medal for oral presentation** in UGC sponsored National conference on “*Nanotechnology: Fundamentals and Applications*”held at *C.K.T. College New Mumbai (India)*April 2012.
- ❖ Paper presented in UGC sponsored National symposium on Advances in current sciences, Mumbai, India (Jan-2015) and awarded by **Best Oral Presentation**.
- ❖ Paper presented in UGC sponsored National symposium on Environmental issues and challenges, India (2014) and awarded by **First Prize for Oral Presentation**.
- ❖ Paper presented in UGC sponsored National seminar on 'Advances in Material Chemistry and Applications' (2015) and awarded by **Third Prize for Oral Presentation**.

International publications (43) citations (1090) h-index (18), i-10 (28):

No.	Title of research paper	Authors/Journal name/ volume/page	Impact Factor
1	Machine-Fabricated 3D Honeycomb Structured Flame-Retardant Triboelectric Fabric for Fire Escape and Rescue"	Liyun Ma, Ronghui Wu, Sai Liu, Aniruddha Patil , Hao Gong, Jia Yi, Feifan Sheng, Yuzei Zhang, Jiang Wang, Jun Wang, Wenxi Guo, Zhong Lin Wang*. <i>Advanced Materials</i> 2020, 32 (38), 2003897	32.086
2	Tailoring the meso-structure of gold nanoparticles in keratins-based activated carbon toward high-performance flexible sensor.	Aniruddha Patil* , Zhaohui Meng, Ronghui Wu, Liyun Ma, Zijie Xu, Chenyang Shi, Wu Qiu, Qiang Liu, Yifan Zhang, Youhui Lin, Naibo Lin, and Xiang Yang Liu <i>Nano-Micro Letters</i> 2020, 12, 117 (DOI: 10.1007/s40820-020-00459-5)	23.655
3	Acid and Alkali-Resistant Textile Triboelectric Nanogenerator as a Smart Protective Suit for Liquid Energy Harvesting and Self-Powered Monitoring in High-Risk Environments	Liyun Ma, Ronghui Wu, Aniruddha Patil , Jia Yi, Di Liu, Xuwei Fan, Feifan Sheng, Yifan Zhang, Sai Liu, Shen Shen, Jun Wang, and Zhong Lin Wang <i>Advanced Functional Materials</i> . 2021, 31 (35), 2102963.	19.924

4	Full-Textile Wireless Flexible Humidity Sensor for Human Physiological Monitoring.	Liyun Ma Ronghui Wu Aniruddha Patil , Shuihong Zhu Zhaohui Meng Haiqiang Meng Chen Hou Yifan Zhang Qiang Liu Rui Yu Jun Wang Naibo Lin Xiang Yang Liu. <i>Advanced Functional Materials</i> 2019, 29(43), 1904549.	19.924
5	Continuous and Scalable Manufacture of Hybridized Nano-Micro Triboelectric Yarns for Energy Harvesting and Signal Sensing.	Liyun Ma, Mengjuan Zhou, Ronghui Wu, Aniruddha Patil , Hao Gong, Shuihong Zhu, Tingting Wang, Yifan Zhang, Shen Shen, Kai Dong, Likun Yang, Jun Wang, Wenxi Guo, Zhong Lin Wang. <i>ACS Nano</i> 2020, 14, 4, 4716-4726.	18.027
6	Stretchable, Stable, and Degradable Silk Fibroin Enabled by Mesoscopic Doping for Finger Motion Triggered Color/Transmittance Adjustment	Zijie Xu, Wu Qiu, Xuwei Fan, Yating Shi, Hao Gong, Jiani Huang, Aniruddha Patil , Xuyi Li, Shutang Wang, Hongbin Lin, Chen Hou, Jizhong Zhao, Xing Guo, Yun Yang, Hezhi Lin, Lianfen Huang*, Xiang Yang Liu*, and Wenxi Guo*. <i>ACS Nano</i> 2021, 15, 7, 12429–12437	18.027
7	Reconstructed Silk Fibroin Mediated Smart Wristband for Physiological Signal Detection	Zhang Yifan, Aniruddha Patil , Hou Chen, Lu Di, Qiu Wu, Kong Lingqing, Wu Ronghui, Ma Liyun, Yu Rui, Yu Weidong, LiuXiang Yang <i>Chemical Engineering Journal</i> 2021, 428, 132362.	16.744
8	Hierarchical Structure of Silk Materials vs Mechanical Performance and Mesoscopic Engineering Principles.	Wu Qiu, Aniruddha Patil , Fan Hu and Xiang Yang Liu <i>Small</i> , 2019, 1903948 (1-45)	15.153
9	From Molecular Reconstruction of Mesoscopic Functional Conductive Silk Fibrous Materials to Remote Respiration Monitoring.	Liyun Ma, Qiang Liu, Ronghui Wu, Zhaohui Meng, Aniruddha Patil , Rui Yu, Yun Yang, Shuihong Zhu, Xuwei Fan, Chen Hou, Yanran Li, Wu Qiu, Lianfen Huang, Jun Wang, Naibo Lin, Yizao Wan, Jian Hu, Xiang Yang Liu. <i>Small</i> 2020, 2000203	15.153
10	Graphene Decorated Carbonized Cellulose Fabric for Physiological Signal Monitoring and Energy Harvesting.	Wu Ronghui, Ma Liyun, Aniruddha Patil , Meng Zhaohui, Liu Sai, Chen Hou, Zhang Yifan, Yu Weidong, Guo Wenxi, Liu Xiangyang <i>Journal of Material Chemistry: A</i> 2020,8, 12665-12673	14.511
11	An efficient disposable and flexible electrochemical sensor based on a novel and stable metal carbon composite derived from cocoon silk.	Aniruddha Patil* , Yafen Huang, Liyun Ma, Ronghui Wu, Zhaohui Meng, Lingqing Kong, Yifan Zhang, Wenli Zhang, Qiang Liu, Xiang Yang Liu. <i>Biosensors and Bioelectronics</i> , 2019, 142, 111595.	12.545
12	Fibrous Inductance Strain Sensors for Passive Inductance Textile Sensing.	Ronghui Wu, Liyun Ma, Aniruddha Patil , Yifan Zhang, Chen Hou, Rui Yu, Xiang Yang	11.021

		Liu <i>Materials Physics Today</i> , 2020,15, 100243	
13	All-Textile Electronic Skin Enabled by Highly Elastic Spacer Fabric and Conductive Fibers.	Ronghui Wu, Liyun Ma, Aniruddha Patil , Chen Hou, Shuihong Zhu, Xuwei Fan, Hezhi Lin, Weidong Yu*, Wenxi Guo*, Xiang Yang Liu* <i>ACS Appl. Mater. Interfaces</i> 2019 (11) 36, 33336-33346	10.383
14	Primary and Secondary Mesoscopic Hybrid Materials of Au Nanoparticles@Silk Fibroin and Applications.	Chenyang Shi, Yao Xing, Aniruddha Patil , Zhaohui Meng, Rui Yu, Naibo Lin, Wu Qiu, Fan Hu, and Xiang Yang Liu <i>ACS Applied Materials & Interfaces</i> 2019, 11 (33), 30125-30136 (Equal Contribution)	10.383
15	Tailoring NiCoAl Layered Double Hydroxide Nanosheets for Assembly of High-performance Asymmetric Supercapacitors	Zhaohui Meng, Wen Yan; Mingye Zou; Hao Miao; Fangxing Ma; Aniruddha B Patil ; Rui Yu; Xiangyang Liu; Naibo Lin, <i>Journal of Colloid and Interface Science</i> , 2021, 583, 722-733	9.965
16	Layer-by-layer immobilizing of polydopamine-assisted ϵ -polylysine and gum Arabic on titanium: Tailoring of antibacterial and osteogenic properties.	Yanmei Zhang, Fumiao Wang, Qiaoling Huang, Aniruddha Patil , Jiejie Hu, Lili Fan, Yun Yang Hongping Duan, Xiang Dong, Changjian Lin. <i>Materials Science and Engineering: C</i> , 2020, 110, 110690.	7.328
17	Programing Performance of Silk Fibroin Superstrong Scaffolds by Mesoscopic Regulation among Hierarchical Structures	Zhang, Yifan; Tu, Huang; Wu, Ronghui; Patil, Aniruddha ; Hou, Chen; Lin, Zaifu; Men, Zhaohui; Ma, Liyun; Yu, Rui; Yu, Weidong; Liu, Xiang Yang, <i>Biomacromolecules</i> 2020, 21, 10, 4169–4179	6.978
18	Enzymatic Crosslinked Silk Fibroin Hydrogel for Biodegradable Electronic Skin and Pulse Waveform Measurements	Lei Wang*, Simin Peng, Aniruddha Patil, Jungang Jiang, Yifan Zhang*, and Chunyu Chang, <i>Biomacromolecules</i> 2022, 23, 8, 3429–3438	6.978
19	Hydroarylation of arenes with styrenes using Montmorillonite K-10 as an efficient, selective, and recyclable catalyst.	Satish R. Lanke, Ziyauddin S. Qureshi, Aniruddha Patil , Dinkar S. Patil, Bhalchandra M. Bhanage. <i>Green Chemistry Letters and Reviews</i> 2012, 5, 621-632.	6.016
20	Selective and efficient synthesis of decahedral palladium nanoparticles and its catalytic performance for Suzuki coupling reaction.	Aniruddha Patil , D. S. Patil and B. M. Bhanage, <i>Journal of Molecular Catalysis-A</i> 2012, 365, 146– 153.	5.089
21	Solar energy assisted synthesis of palladium nanoplates and its application in 2-phenoxy-1,1'-biphenyls and N, N- dimethyl-[1,1'-biphenyl] derivatives synthesis.	Aniruddha Patil and B. M. Bhanage, <i>Journal of Molecular Catalysis-A</i> 2013, 379, 30-37.	5.089
22	Novel and green approach for the nanocrystalline magnesium oxide synthesis and its catalytic performance in Claisen–Schmidt condensation.	Aniruddha Patil and Bhalchandra M. Bhanage, <i>Catalysis Communications</i> 2013, 36, 79–83.	3.510

23	Flexible and disposable gold nanoparticles-N-doped carbon-modified electrochemical sensor for simultaneous detection of dopamine and uric acid	Aniruddha B Patil* , Chuanbao Zheng, Liyun Ma, Ronghui Wu, Sharwari K Mengane, Yifan Zhang, Xiaotian Liu, Zhaohui Meng, Wenli Zhang, Zijie Xu, Caifeng Chen, Jiani Huang, and Xiang Yang Liu. <i>Nanotechnology</i> , 2020, 32, 6	3.953
24	A capacitive humidity sensor based on all-protein embedded with gold nanoparticles @ carbon composite for human respiration detection	Ma, Liyun; Aniruddha B Patil* ; Wu, Ronghui ; Zhang, Yifan ; Meng, Zhaohui ; Zhang, Wenli; Kong, Lingqing; Liu, Xiang-Yang; Wang, Jun <i>Nanotechnology</i> , 2021, 7;32(19):19LT01	3.953
25	Solar energy assisted palladium nanoparticles synthesis in aqueous medium.	Aniruddha Patil , S. R. Lanke , K. M. Deshmukh , A. B. Pandit, B. M. Bhanage. <i>Materials Letters</i> 2012, 79, 1–3.	3.574
26	ZnO nanoparticle by solar energy and their catalytic application for α -amino phosphonates synthesis.	Aniruddha Patil , D. S. Patil, B. M. Bhanage. <i>Materials Letters</i> 2012, 86, 50–53.	3.574
27	A facile method to prepare a wearable pressure sensor based on fabric electrodes for human motion monitoring	Ronghui Wu , Liyun Ma, Aniruddha Patil , Chen Hou, Zhaohui Meng, Yifan Zhang, Xiangyang Liu and Weidong Yu. <i>Textile Research Journal</i> 2019 89(23-24), pp. 5144-5152.	2.455
28	Effect of Graphene on Ice Polymorph	C Zheng, H Lu, Q Xu, T Liu, A Patil , J Wu, R de Vries, H Zuilhof, Z Zhang, <i>Crystals</i> , 2021, 11 (9), 1134	2.670
29	All-in-one fibrous capacitive humidity sensor for human breath monitoring.	Ma Liyun; Wu, Ronghui; Miao, Hao; Fan, Xuwei; Zhu, Shuihong; Kong, Linqin; Zhang, Yifan; Lin, Naibo; Aniruddha Patil ; Liu, Xiang*; Wang, Jun* <i>Textile Research Journal</i> 2020, 91 (3-4), 398-405.	2.455
30	Enhanced mechanical performance of biocompatible silk fibroin films through mesoscopic construction of hierarchical structures	Yifan Zhang, Ronghui Wu, Aniruddha Patil, Liyun Ma, Rui Yu, Wei Dong Yu, Xiang Yang Liu. <i>Textile Research Journal</i> 2020, 91, 1146-1154.	2.455
31	A Novel Facile and Green Synthesis Protocol to Prepare High Strength Regenerated Silk Fibroin/SiO ₂ Composite Fiber.	Qiang Liu, Zhaohui Meng, Ronghui Wu, Liyun Ma, Wu Qiu, Honghao Zhang, Shuihong Zhu, Lingqing Kong, Zijie Xu, Aniruddha Patil* , and Xiangyang Liu* <i>Fibers and Polymers</i> 2019, 20, 2222-2226.	2.347
32	Solvent-free oxidation of alcohols with potassium persulphate in the presence of bronsted acidic ionic liquids.	A. Chaskar, S.Bhandari, Aniruddha Patil , O. Sharma, S.Mayeker. <i>Synthetic Communications</i> 2009, 39, 366-370.	1.973
34	Novel synthesis of anthelmintic drug 4-isothiocyanato-4'-nitrodiphenyl ether and its analogs.	A.Chaskar, B. Bandgar, R. Modhave, Aniruddha Patil , S. Yewale. <i>Synthetic Communications</i> 2009, 39, 992-1001.	1.937
35	Palladium nanoparticles/wool keratin-assisted carbon composite-modified flexible and disposable electrochemical solid-state pH sensor	Wenli Zhang, Xiaotian Liu, Youhui Lin, Liyun Ma, Linqin Kong, Guangzong Min, Ronghui Wu, Sharwari K Mengane, Likun Yang, Aniruddha B Patil*, Xiang Yang Liu,	1.652

		<i>Chinese Physics B</i> , 2022, 31(2): 028201	
36	Solar energy assisted starch-stabilized PdNPs and their application in C-C coupling reactions.	Aniruddha Patil and Bhalchandra M. Bhanage, <i>Journal of Nanoscience and Nanotechnology</i> 2013, 13, 1-8.	1.354
37	Applications of Fe ₃ O ₄ as a magnetic nanocatalyst in the synthesis of photochromic spironaphthoxazines.	Jyotsna Pargaonkar, Aniruddha Patil Shailesh Wazekar. <i>Research Journal of Chemistry and Environment</i> , 2020, 24(6), 61-69	0.21
38	Biosynthesis of Silver Nano Particles from <i>Tridax procumbens</i> and its Antioxidant Potential: A Novel Biological Approach.	Aniruddha Patil , C.S.Panse and S. K. Mengane, <i>Journal of Bionanoscience</i> 2017, 11, 442–445.	0.14
39	Green Synthesis of Silver Nano Particles from <i>Clerodendrum serratum</i> and Antimicrobial Activity Against Human Pathogens.	Aniruddha Patil and S. K. Mengane, <i>Journal of Bionanoscience</i> 2016, 10, 491–494.	0.14
40	Metal Nanoparticles: Ligand-Free Approach Towards Coupling Reactions	Sharwari K. Mengane, Ronghui Wu, Liyun Ma, Chhaya S. Panse, Shailesh N. Vajekar and Aniruddha B. Patil* , <i>Current Chinese Science</i> , 2022, 2, 7-37.	
41	Flexible, Biocompatible, Degradable Silk Fibroin Based Display.	Guo, Wenxi and Xu, Zijie and He, Zhi and Huang, Jiani and Qiu, Wu and Cao, Leo N.Y. and Patil, Aniruddha and Yang, Bo-Ru and Liu, Xiangyang, Available at SSRN: https://ssrn.com/abstract=4336583 or http://dx.doi.org/10.2139/ssrn.4336583	
42	Optimization of Spray Pulse Reactor Conditions used for Dehydrogenation of LOH by using RSM for hydrogen storage and delivery applications	Shubhangi Prakash Patil, Minakshi N Bhatu, Aniruddha B Patil (communicated)	
43	Recent advances on silica-coated sulfonic acid-functionalized magnetite nanoparticles (Fe ₃ O ₄ @SiO ₂ -SO ₃ H)	Shailesh N. Vajekar, Aniruddha B. Patil , Ganapati S. Shankarling (communicated)	

Patents (9) granted (6) Commercialized (2):

1. A Self-Powered Reusable Protective Smart Mask Equipped with Heating Coil and Breath Monitoring Sensor. **Aniruddha B. Patil**, Ramchandra G. Patil, Chhaya S. Panse, 2020 *Indian Patent: 202021025199/MUM/2020*
2. Synthesis fo biologically active yttrium (III) complexes. **Aniruddha B.Patil**, 2015 *Indian patent: 3909/MUM/2015*
3. Method for the synthesis of palladium nanoparticles using solar energy.**Aniruddha B.Patil**, Krishna M. Deshmukh, Aniruddha B. Pandit, BhalachandraM. Bhanage, 2011, *Indian patent: 1842/MUM/2011*
4. Method for Zinc oxide nanoparticle synthesis using solar Energy.**Aniruddha B.Patil**, Satish R. Lanke, Aniruddha B. Pandit, BhalachandraM. Bhanage, *Indian patent: IN 271216 Granted on 09/02/2016*
5. Method for Magnesium oxide nanoparticle synthesis using solar energy.**Aniruddha B.Patil**, KushalD. Bhatte, AniruddhaB. Pandit, BhalachandraM. Bhanage, 2011, *Indian patent: IN 274322 Granted on 21/07/2016*

6. Natural protein assisted in-situ synthesis of the composites of metal nanoparticles hosted in nitrogen doped porous carbon matrix (MNPs@NPC). **Aniruddha B. Patil**, Zhaohui Meng, Ronghui Wu, Liyun Ma, Wu Qiu, Qiang Liu, Xiang Yang Liu (201910089870.3/2019-01-30) *Chinese Patent* [[Protein-based nitrogen-doped carbon/metal nanoparticle composite material and ...CN CN109888211B](#) 安尼如德·帕蒂尔 厦门大学 Priority 2019-01-30 • Filed 2019-01-30 • Granted 2021-01-15 • Published 2021-01-15] *Technology Transfer to* Xiamen Cortison Technology Co.,Ltd.
7. Strip based body fluids ph sensor. **Aniruddha B. Patil**, Ronghui Wu, Liyun Ma, Zhaohui Meng, Qiang Liu, Xiang Yang Liu (201910089925.0/2019-01-30) *Chinese Patent- Granted ZL (2019) 1 0089925.0* [[Flexible strip-shaped pH sensor capable of detecting body fluid in real time CN CN109765285B](#) 安尼如德·帕蒂尔 厦门大学 Priority 2019-01-30 • Filed 2019-01-30 • Granted 2020-06-09 • Published 2020-06-09] *Technology Transfer to* Xiamen Cortison Technology Co.,Ltd
8. Metal nanoparticles @n-doped porous carbon assisted uric acid sensor for real time body fluids analysis. **Aniruddha B. Patil**, Liyun Ma, Ronghui Wu, Zhaohui Meng, Qiang Liu, Xiang Yang Liu (201910089886.4/2019-01-30) *Chinese Patent- Granted ZL (2019) 1 0089886.4* [[Flexible strip-shaped uric acid sensor capable of detecting body fluid in real ... CN CN109765283B](#) 安尼如德·帕蒂尔 厦门大学 Priority 2019-01-30 • Filed 2019-01-30 • Granted 2020-06-09 • Published 2020-06-09] *Technology Transfer to* Xiamen Cortison Technology Co.,Ltd.
9. Fiber based electrochemical body fluids sensor **Aniruddha B. Patil**, Ronghui Wu, Liyun Ma, Xiang Yang Liu (201910089900.0/2019-01-30) *Chinese Patent Granted ZL (2019) 1 0089900.0* [[It is a kind of can real-time detection body fluid yam-like uric acid sensor CN CN109765284A](#) 安尼如德·帕蒂尔 厦门大学 Priority 2019-01-30 • Filed 2019-01-30 • Published 2019-05-17

International Books chapters (5):

1. Book Chapter entitled "Green Nanoparticles: Synthesis and Catalytic Applications. In: Hussain C.M., Di Sia P. (eds) Handbook of Smart Materials, Technologies, and Devices. Springer, Cham. https://doi.org/10.1007/978-3-030-58675-1_75-1 (2021). **Aniruddha B. Patil**, Sharwari K. Mengane and Bhalchandra M. Bhanage Publisher **Springer International Publishing**.
2. Book Chapter entitled 'Greener methodologies in the synthesis of metal and metal oxide nanoparticles' Chapter No. 18, page no 295-312, in "Nanomaterials for Environmental Protection". Editors: Boris I. Kharisov, Oxana V. Kharissova, H. V. Rasika Dias; Publisher **John Wiley & Sons**, Book ISBN: 978-1-118-49697-8, September, 2014" **Aniruddha B. Patil** and Bhalchandra M. Bhanage
3. Book Chapter entitled 'Sonochemistry: A Greener protocol for nanoparticles synthesis' in 'Handbook of Nanoparticles' Editors: Mahmood Aliofkhaezai, ISBN: 978-3-319-13188-7 (Online), DOI: 10.1007/978-3-319-13188-7_4-1, Publisher **Springer International Publishing**, **Aniruddha B. Patil** and Bhalchandra M. Bhanage.
4. Book Chapter entitled 'Greener aspects in the synthesis of metal and metal oxide nanoparticles' Chapter 25, in **CRC Concise Encyclopedia of Nanotechnology**; Edited by : Boris Ildusovich Kharisov, Oxana Vasilievna Kharissova, Ubaldo Ortiz-Mendez; December 7, 2015 Forthcoming by CRC Press Reference - 1288 Pages - 870 B/W Illustrations, ISBN 9781466580343, **Aniruddha B. Patil** and B. M. Bhanage.
5. Book Chapter entitled 'Synthesis and catalytic applications of magnetic nanoparticles' in Encyclopedia of Nanoscience and Nanotechnology (25-Volume set) of American Scientific Publishers, Volume 30: Pages (241–257), 2019. ISBN: 1-58883-217-1, **Aniruddha B. Patil** and Bhalchandra M. Bhanage.
6. Book Chapter entitled 'Biomass- derived Nanoparticles and their applications: Sensing, Catalytic, Biomedical and Environmental' Suprita Naik, Chhaya S. Panse, **Aniruddha B. Patil*** "Nanomaterials

in Industrial Chemistry Applications”

International/national Panels

1. Section Editor Material Science ‘Current Indian Science’, Bentham Science Publication, Sharjah, **UAE** [ISSN: 2210-3007 (Online) ISSN: 2210-299X (Print)]
2. Editorial Board Member of Science Journal of Chemistry(SJC) Science Publishing Group, **USA** [ISSN Print: 2330-0981; ISSN Online: 2330-099X]
3. Associate Editor ‘Current Chinese Sciences’, Bentham Science Publication, **UAE** [ISSN (online): 2210-2981 ISSN (Print): 2210-2914]
4. Editorial board Member ‘American Journal of Bioscience and Bioengineering’, Science Publishing Group, **USA**[ISSN Online: 2328-5893, ISSN Print: 2328-5885]
5. Editorial board Member ‘Advanced Materials Science and Technology’ Omniscient Pte. Ltd. Publishing group, **Singapore** [ISSN: 2717-526X]
6. Abassador of Bentham Science Publication Group, **UAE** (2020-2021)
7. Reviewer Panel of Hislopia Journal, [ISSN:0976:2124]

International/national paper reviewer (2):

Paper reviewer of high repute journal at International level

1. Ms. Ref. No.: ULTSON-D-14-00519, Ultrasonic Sonochemistry (Impact factor: 7.630)
2. Ms. Ref. No.: ULTSON-D-14-00416, Ultrasonic Sonochemistry (Impact factor: 7.630)
3. International journal of Pharma and Biosciences
4. Reviewer Panel of Hislopia Journal [ISSN:0976:2124]
5. Cellulose
6. Journal of Materials Science Ms. Ref. No: JMSC-D-21-03297

Invited speaker (16):

1. Invited as resource Chairperson at One days International Seminar on "Greener Synthesis and Catalysis: Recent Developments and Opportunities” organized by Department of Chemistry organized by KLE Society’s Science and commerce College Kalamboli, Panvel, New Mumbai, Maharashtra on March 14th 2023.
2. Invited talk on ‘What are Intellectual Property Rights (IPR)?’ organized by KLE Society’s Science and commerce College Kalamboli, Panvel on 31st January 2023.
3. Invited talk on ‘Intellectual Property Rights and Research Design’ organized by KLE Society’s Science and commerce College Kalamboli, Panvel on 31st January 2023.
4. Invited talk on ‘Science behind Rituals’ at NSS residential camp, DSahivali, Badlapur, Maharashtra, organized by M.D.College, Parel on 15th December 2022.
5. Invited as Judge for Poster paper presentation at Two days National Seminar on "Nanotechnology and its Applications” organized by Department of Chemistry C.K.T. College, New Panvel, Mumbai, Maharashtra on September 16-17, 2022.
6. Invited as resource Chairperson at Two days National Seminar on "Nanotechnology and its Applications” organized by Department of Chemistry C.K.T. College, New Panvel, Mumbai, Maharashtra on September 16-17, 2022
7. Invited talk entitled ‘ Research Methodology and Intellectual Property Rights’ at SSGM College, Kopergaon Ahamdnagar on 26th July 2022.
8. Invited talk Intellectual Property Rights (IPR) organized by IQAC, M. D. College Parel on 4th Feb 2020.
9. Invited talk Intellectual Property Rights (IPR) organized by IQAC, M. D. College Parel on 20th April 2022.
10. Invited talk to graduate students organized by Department of Marathi, M. D. College Parel 29th Jan 2020.
11. Invited talk entitled ‘Recent Trends in Chemistry’ at Shri Shahu Chhatrapati Shikshan Sanstha’s Shri Shahaji Chh. Mahavidyalaya Kolhapur on 1st June 2021.

12. Invited talk entitled 'Career in Research' at Department of Chemistry, Chanda Shikshan Prasarak Mandal's Janata Mahavidyalaya Chandrapur on 30th January 2021.
13. Invited talk entitled 'Basic concepts in Nanomaterials' at Department of Chemistry, Chanda Shikshan Prasarak Mandal's Janata Mahavidyalaya Chandrapur on 30th January 2021.
14. Invited talk on synthesis and applications of core shell nanoparticles in 34th Indian Council of Chemists National conference at Bardoli, Surat, Gujarat, India.
15. Invited talk on 'Preparation for competitive exams' at NSS residential camp, organized by M.D.College, Parel.
16. Invited talk on 'Science and Health' at NSS residential camp, organized by M.D.College, Parel.

Presentations and participation in Conferences/ Seminars/Workshops (31)

International (09)

1. **International:** Poster presented at ' Xiamen soft matter forum-2019- Fundamentals of Bio-inspired Soft Matters and Hybrid Materials, and Flexible Electronics' organized by Bio smat- Xiamen University, Xiamen, Fujian, China (1st to 3rd Nov 2018)
2. **International:** Attended *International Graduate Summer School* on Soft Matter and Nonequilibrium Physics organized by Xiamen University, Xiamen, Fujian, China and Huao qao University, Xiamen, Fujian (August 5-16, 2019)
3. **International:** Poster presented at ' Xiamen soft matter forum-2018- Flexible electronics, Internate of things and big data' organized by Bio smat- Xiamen University, Xiamen, Fujian, China (2nd to 4th Nov 2018)
4. **International:** Attended ' Xiamen soft matter forum-2017' organized by Bio smat- Xiamen University, Xiamen, Fujian, China (2nd and 3rd Nov 2017)
5. **International:** Poster presented in International symposium on material science at BARC, Mumbai, India (Dec.-2012).
6. **International:** Poster presented in Indo-Japan conference, at ICT, Mumbai, India.
7. Oral presentation in 2012 Indian Council of Chemist conference, at Rajkot, Gujarat, India.
8. **International:** Organiser and participant in Three days International Indo-German symposium from 29-31 Oct 2012 at Mumbai, India.
9. **International:** Organiser and participant in One Day Chem Carrier at ICT in collaboration with RSC on 20th Oct 2012 at ICT, Mumbai, India.

National (22)

1. Presented paper entitled 'Facile green synthesis of silver nano particles using scales of Indian Salmon (*Eleutheronema tetradactylum*) and its broad spectrum antimicrobial activity' at Two days National Seminar on "Nanotechnology and its Applications" organized by Department of Chemistry C.K.T. College, New Panvel, Mumbai, Maharashtra on September 16-17, 2022.
2. Presented paper entitled 'Green synthesis of silver nanoparticles using Chitin extract from prawn shell and to study its antibacterial property' at Two days National Seminar on "Nanotechnology and its Applications" organized by Department of Chemistry C.K.T. College, New Panvel, Mumbai, Maharashtra on September 16-17, 2022.
3. Attended Two days National Seminar on "Nanotechnology and its Applications" organized by Department of Chemistry C.K.T. College, New Panvel, Mumbai, Maharashtra on September 16-17, 2022. Workshop on "Revised syllabus of Chemistry" for First year B.Sc. held at PES's Bhausahab Nene College, Pen on 28th July, 2022.
4. Workshop on 'Avishkar Research Convention orientation workshop on 23rd July 22(Saturday)' held at the College of Home Science Nirmala Niketan organized by University of Mumbai and the College of Home Science Nirmala Niketan.
5. Guided a research proposal titled Green synthesis of Silver Nanoparticle using Chitin from prawn shells and determining its antibacterial property which was Presented by Ms. Naik Suprita in Pure Sciences category and PPG level.
6. Guided a research proposal titled Nanoparticles: Dendrimer-Encapsulated Metal Nanoparticle

Thin Films on solid Surfaces which was submitted by Ms. Kudtarkar Shreya in Pure Sciences category and PG level for the Selection Round of 15th InterCollegiate / Institute / Department Avishkar Research Convention: 2020-21 for zone.

7. Guided a research proposal titled Nanotechnology Based on Green energy Solution which was submitted by Ms. Kadam Sayali in Pure Sciences category and PG level for the Selection Round of 15th Inter-Collegiate / Institute / Department Avishkar Research Convention: 2020-21 for zone.
8. Guided a research proposal titled Synthesis of Silver Nanoparticles using Azadirachta indica (Neem) leaf extraction which was submitted by Ms. Nikam Neeta in Pure Sciences category and PG level for the Selection Round of 15th Inter-Collegiate / Institute / Department Avishkar Research Convention: 2020-21 for zone.
9. Guided a research proposal titled Green synthesis of Gold Nanoparticle using Cinnamon bark extract as reducing agent which was submitted by Ms. Nevrekar Apoorva in Pure Sciences category and PG level for the Selection Round of 15th InterCollegiate / Institute / Department Avishkar Research Convention: 2020-21 for zone.
10. Paper presented in UGC sponsored National seminar on 'Advances in Material Chemistry and Applications' (2015) and awarded by **Third Prize for Oral Presentation**.
11. Paper presented in National symposium on Advances in current sciences, Mumbai, India (Jan-2015) and awarded by **Best Oral Presentation**.
12. Paper presented in National symposium on Environmental issues and challenges, India (2014) and awarded by **First Prize for Oral Presentation**.
13. Paper presented in National conference on Nanotechnology, Panvel, Mumbai, India (2014).
14. Title: "Greener method for the synthesis of Pd(0) nanoparticles and their application in Suzuki C-C Coupling reaction." Secured **National level Gold medal for oral presentation** in UGC sponsored National conference on "*Nanotechnology: Fundamentals and Applications*" held at C.K.T. College New Mumbai (India) April 2012.
15. Two days seminar on "*Green Chemistry and Catalysis*" at Institute of chemical Technology Matunga, Mumbai on 3 & 4th March 2011.
16. Successfully completed a Two days course on "*Laboratory Safety*" conducted by Dept. of Chemistry, Institute of chemical Technology Matunga- Mumbai on 3 & 4th February 2011.
17. UGC sponsored National conference on "*Environmental Pollution and monitoring*" during 17-18 September 2010.
18. Two days state level seminar on "*Recent advances in chemistry*" at C.K.Thakur College New Panvel on 9 & 10th January 2009.
19. Workshop on "*Revised syllabus of Inorganic chemistry*" for Second year B.Sc. held on July 2009 at M.D. College, Parel –Mumbai.
20. Workshop on "*Revised syllabus of Inorganic chemistry*" for First year B.Sc. held on 9th July 2008 at K.V.Pendharkar College, Dombivli-Thane-421203.
21. Two days seminar on "*Specialized aspects of organic chemistry*" at C.K.Thakur College New Panvel on 18&19th January 2008.
22. Workshop on "*Spectroscopy*" sponsored by UGC and organized by Dept. Of Chemistry, Institute of Science, Mumbai-400032 on February 23-24, 2006.

Professional courses (09):

1. Orientation Program at HRDC Goa University, Goa from 1st March 2016 to 28th March 2016 with **A Grade**.
2. Refresher course in Environmental Studies at HRDC Goa University, Goa from 10th January 2017 to 30th January 2017 with **A Grade**.
3. Refresher course in Chemistry held during 8/07/2022 to 22/07/2022 and obtained **A+ grade** organized by UGC-HRDC centre, Kumaun University, Nainital, Uttarakhand.

4. Refresher course in Chemistry held during 23/11/2020 to 05/12/2020 and obtained **A+ grade** organized by UGC-HRDC centre, Sant Gadge Baba Amravati, Amravati (M.S.)
5. Completed FLY-Professional (Finding the Leader in You - Professional) program, from 'the Competitiveness Mindset Institute, USA June-2021 [Certificate No. 157475711
6. Eight Day National Level Online Workshop on " E Content Development (Educational Audio Video Production) "Organized by the Internal Quality Assurance Cell, on 10th and 17th May 2020.
7. Two Day Online Workshop on Experiential Teaching with Diverse Tools"Organized by the Internal Quality Assurance Cell, on 26th and 27th May 2020.
8. Seven Days Online Faculty Development Program on, "Earth & Environment Responses during COVID-19" organized by HRDC, Savitribai Phule Pune University Pune 411 007 from 11.07.2020 to 17.07.2020.
9. Seven Days Faculty Development Program on Nanomaterials Characterization Techniques & Results Analysis Methodology: Ideas Innovations & Initiatives Organised by UGC-Human Resource Development Centre, Savitribai Phule Pune University Department of Physics, S.N. Arts, D.J. Malpani Commerce & B. N. Sarda Science College (Autonomous), Sangamner, MS 422605 & Pandit Madan Mohan Malaviya National Mission on Teachers & Teaching (PMMMNTT) from 27/07/2020 to 31/07/2020.

International research:

- ❖ Since Aug 2017 working as a Post Doctoral fellow with **Prof. Xiang Yang Liu, Bio Smat, Xiamen University, Xiamen, China**
- ❖ From March 2013 working in the group of **Prof. Walter Leitner**, in CAT Catalytic Centre, **RWTH Aachen University, Germany** as a 'Guest Researcher' and handled Bayer Technology Services project.

Academic and industrial working experience:

- ❖ Since Dec 2013 working as *Assistant professor* in M.D. College, Parel, Mumbai, India.
- ❖ **Two year Assistant professor** in C.K.Thakur,A.C.S. College New Mumbai, India.
- ❖ Three and half year **Quality control chemist** in Lasons India Pvt. Ltd, India.
- ❖ Half year **Method validation chemist** in Pharmasolve Pvt. Ltd. Mumbai, India.

Projects:

- ❖ University minor research project of 40000/-, from University of Mumbai, entitled 'Natural protein assisted synthesis of Metal-carbon composites and their catalytic electrocatalytic application'. Sanction No 687 Ref. No. APD/ICD/2019-20/762 (17/03/2020)
- ❖ University minor research project of 30000/-, from University of Mumbai, entitled 'Synthesis and characterization of bimetallic Pd@Fe₂O₃ nanoparticles and their catalytic applications for coupling reaction' in 2016-17. Sanction No 296 Ref. No. APD/237/429 of 2017 (16/01/2017)
- ❖ Project with (BARC) sponsored by (Department of Atomic Energy, India) DAE on "preparation and studies of metal-1,3-diketones, metallocenes and their applications." (PI- Prof. Bhanage)
- ❖ Project with Department of Science and Technology (DST) under the Nano Mission on "study of catalytic activity of nanosize metals and metal oxides prepared by novel or conventional routes". (PI- Prof. Bhanage)

International industrial project:

- ✚ Six months industrial project in the group of **Prof. L. Mlesko (Bayer Technology Services), Leverkusen, Germany.**

International first aid safety measure training:

- ✚ Three days First Aid safety measure training in CAT Catalysis Centre, Aachen, Germany.

Personal profile

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Sex: Male

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(Dr. Aniruddha B. Patil)

Referances

- 1 Prof. Xiang Yang Liu**
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- 2 Prof. Bhalchandra M. Bhanage (FRSC)**
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- 3 Prof. Aniruddha B. Pandit (FRSC)**
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A handwritten signature in blue ink, appearing to read 'Dr. Aniruddha B. Patil'.

(Dr. Aniruddha B. Patil)